

Executive Summary

INTRODUCTION

The Vermont Airport System and Policy Plan provides the Vermont Agency of Transportation (VTrans) with updated airport system planning products, policy recommendations, and a framework for evaluating the State's aviation infrastructure needs. This plan was conducted in a manner consistent with the Federal Aviation Administration's (FAA) Advisory Circular 150/5070-7, *The Airport System Planning Process*. The FAA was one of the primary sources of funding for this plan. The Airport System and Policy Plan will be used by VTrans and airport sponsors to guide development of airports in Vermont in the coming years.

The preparation of the Vermont Airport System and Policy Plan included several components:

- Airport System Plan
- Policy Plan
- Information Management System Review
- Photoslope Analysis
- Rates and Charges Overview
- Acoustical Counting Review

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The Information Management System Review and Photoslope Analysis are tools used by VTrans in their day-to-day airport and data management processes. These updated tools assist in the assurance that the existing State-owned airports are adequately maintained and that the State's broad roles in aviation are conducted in an efficient, effective manner.

An Airport System Plan provides a top down, statewide analysis of the entire system's needs and ability to adequately serve the entire state. Airport master plans serve as the local planning resources, analyzing needs from the "bottom up". The meeting point of the two studies is in the capital development planning process wherein individual airport needs are considered in the larger, statewide framework to provide for long-term development of a balanced, well-served statewide aviation infrastructure that incorporates principles of asset management.

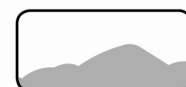
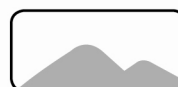
The Policy Plan uses the framework developed for the System Plan, which analyzed the airports roles and needs, and recommends policies to promote the long-term viability and effectiveness of Vermont's airport system.

SYSTEM PLAN PROCESS

The Airport System and Policy Plan was developed with the assistance and reviews of a study advisory committee and the Governor's Vermont Aviation Advisory Council. The initial steps of the study process included establishing goals, identifying performance measures and benchmarks to later measure the performance of the existing system, and establishing factors to stratify airports into functional roles within the State's Airport System. The next steps included completing an inventory of airport facilities and aviation activity, forecasting future aviation demand, identification of facility and service objectives for each of the functional airport roles, and evaluating the current system to identify adequacies, deficiencies, and overlaps. Needs are then identified to meet the objectives for each functional role, and costs for infrastructure, facility, and service enhancements are determined.

EXISTING AIRPORT SYSTEM

The Vermont airport system is comprised of 17 public-use facilities, ranging in size from small, single turf runway facilities to a larger, international airport. Airports in Vermont are currently classified according to the FAA's definitions as either general aviation (GA) or commercial service (CS). Thirteen of the State's 17 airports are currently included in FAA's National Plan of Integrated Airport Systems (NPIAS). The NPIAS identifies airports on the national level that are significant to the national air transportation system and classifies them as either Commercial Service (CS) or



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General Aviation (GA). In order for an airport to obtain federal funding from the FAA, it must be included in the NPIAS.

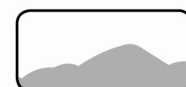
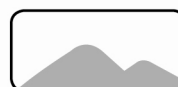
Vermont's system of 17 public-use airports includes 10 State-owned airports, 2 municipally owned airports, and 5 privately owned airports. The ownership is an important consideration as privately owned airports do not typically receive federal or State funding to assist with capital development needs.

AIRPORT ROLES

For system planning purposes, the 17 public-use airports in Vermont were grouped into one of four functional levels based on their current facilities/condition and contribution to the State's airport system. The four roles and their functions include the following:

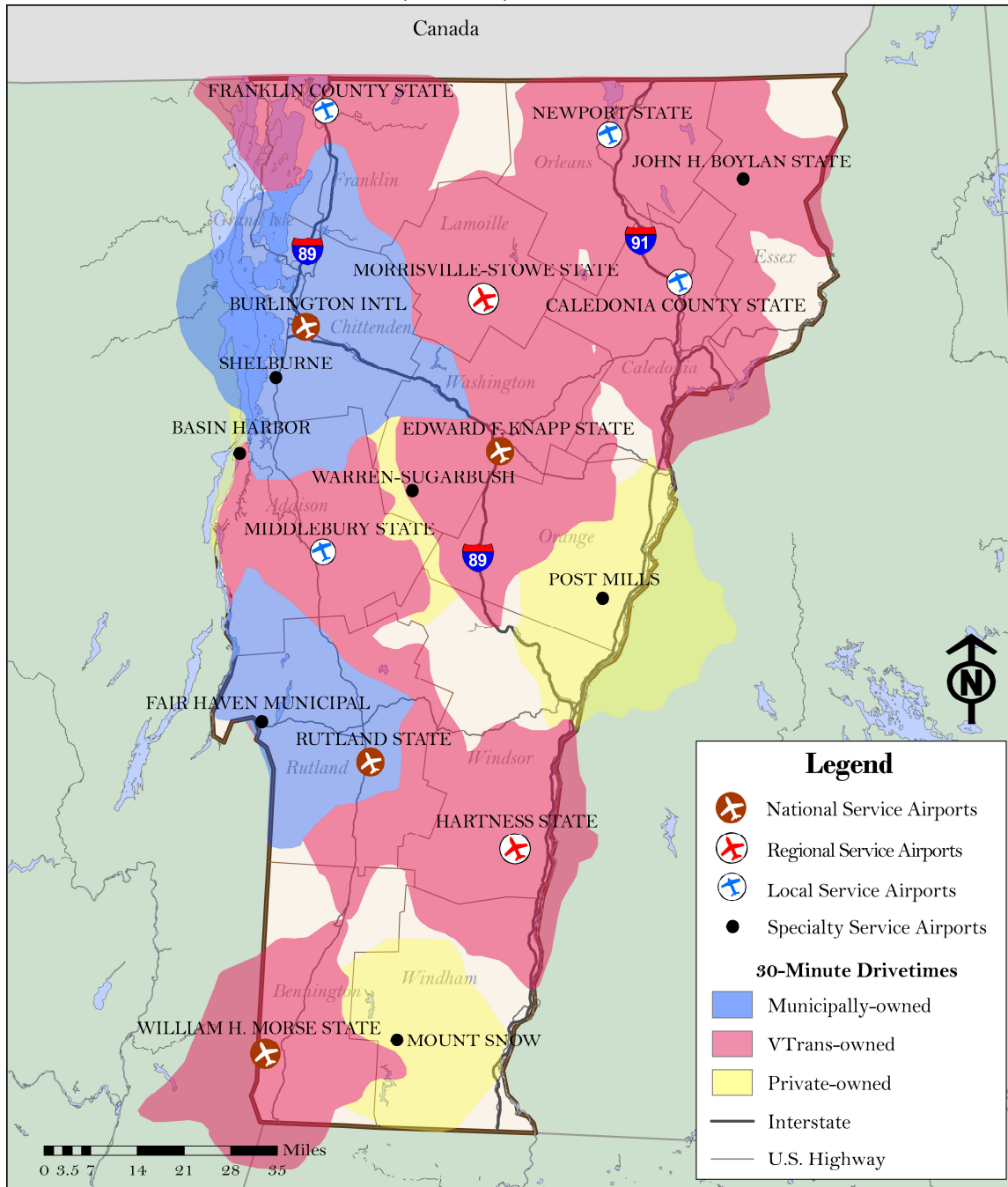
- **National Service Airports** accommodate the highest level of GA activity and connect the local, regional, and statewide economy to the national and global economy.
- **Regional Service Airports** serve primarily GA aircraft, with a focus on business activity, support small jet and multiengine aircraft, and connect the local and regional economies to the State and national economies.
- **Local Service Airports** primarily serve recreational and personal flying activity, support the local economy, serve some corporate/business flights, provide flight training, and provide maintenance, fuel, storage and facilities for piston-driven single and multi-engine aircraft.
- **Specialty Service Airports** provide aviation services for smaller single-engine aircraft and other non fixed-wing aircraft such as ultra-lights, gliders, and balloons. Some are seasonally closed in winter.

Each of these roles serves a purpose within the Vermont Airport System, with the 17 airports providing aviation access to Vermont's business and leisure travelers. The 17 airports, their respective ownership and roles, and 30-minute drive times from each airport are depicted below.



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AIRPORT OWNERSHIP, ROLES, AND 30-MINUTE DRIVE TIME AREAS



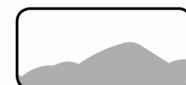
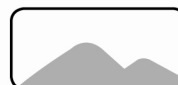
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The following table summarizes the public-use airport system of Vermont as well as each airport's recommended functional role within the Vermont Airport System:

SUMMARY OF CURRENT SYSTEM

Airport Name	City	Airport Identifier	Ownership	Level of Service	NPIAS	Functional Role
Basin Harbor	Vergennes	B06	Private	GA	---	Specialty
Burlington International	Burlington	BTV	Munic. (City of Burlington)	CS	Primary CS	National
Caledonia County State	Lyndonville	6B8	Public (VTrans)	GA	GA	Local
Edward F. Knapp State	Barre/Montpelier	MPV	Public (VTrans)	GA	GA	National
Fair Haven Municipal	Fair Haven	1B3	Munic. (Town of Fair Haven)	GA	GA	Specialty
Franklin County State	Highgate	FSO	Public (VTrans)	GA	GA	Local
Hartness State	Springfield	VSF	Public (VTrans)	GA	GA	Regional
John H. Boylan State	Island Pond	5B1	Public (VTrans)	GA	---	Specialty
Middlebury State	Middlebury	6B0	Public (VTrans)	GA	GA	Local
Morrisville-Stowe State	Morrisville	MVL	Public (VTrans)	GA	GA	Regional
Mount Snow	West Dover	4V8	Private	GA	---	Specialty
Newport State	Newport	EFK	Public (VTrans)	GA	GA	Local
Post Mills	Post Mills	2B9	Private	GA	GA	Specialty
Rutland State	Rutland	RUT	Public (VTrans)	CS	GA	National
Shelburne	Shelburne	VT8	Private	GA	---	Specialty
Warren-Sugarbush	Warren	0B7	Private	GA	GA	Specialty
William H. Morse State	Bennington	DDH	Public (VTrans)	GA	GA	National

Source: Wilbur Smith Associates



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FUTURE DEMAND

As part of the System Plan, forecasts of aviation demand for a 20-year period, using 2005 as a base year, were prepared for both general aviation and commercial service activity:

GENERAL AVIATION FORECASTS

Year	Based Aircraft	Total General Aviation Operations*
2005	583	268,938
2010	610	280,800
2015	630	289,900
2025	668	306,800

COMMERCIAL SERVICE

Year	Operations*		Enplanements	
	Burlington International	Rutland State	Burlington International	Rutland State
2005	31,562	1,938	1,240,309	6,082
2010	33,784	2,800	1,723,000	9,440
2015	36,162	2,800	1,921,055	13,300
2025	41,433	2,800	2,394,908	13,300

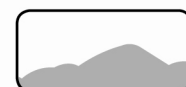
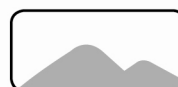
* Note: an operation is either a single take off or a landing

Vermont's airport activity is projected to grow over the next 20 years; the facilities and services of the airport system will need to develop to meet the growing demand.

FACILITY AND SERVICE OBJECTIVES

For each role category, specific objectives were identified in the following categories:

- **Function** refers to the level of service (GA or CS) that an airport should offer, the population that it serves, and the scope to which they are served (international, national, regional, etc.).
- **Activity** refers to the type of aircraft used, the amount of service, as well as the level of service.
- **Facilities/Services** for airline passengers and pilots, such as fuel for aircraft, terminals with certain amenities, aircraft storage, parking, and airside and landside services.



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- **Runway length** varies greatly from a minimum of 5,500 ft. for national service airports to 4,000 ft. for local service.

The facility and service objectives serve as the basis for examining how each airport fulfills its role in the statewide system. It is anticipated that not all airports will be able to meet the objectives identified for their role, but that the facility and service objectives would identify the optimum level of facilities and services that should be provided to meet the overall system goals/performance.

CURRENT SYSTEM PERFORMANCE

The performance of Vermont's airport system was evaluated according to measures in the following three performance categories:

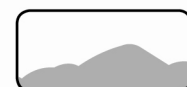
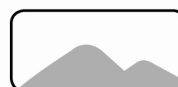
- **Accessibility** – To provide a system of airports that is accessible from both the ground and the air
- **Development** – To provide an airport system that preserves and enhances existing infrastructure.
- **Safety & Security** – To promote a safe and secure system of airports

In terms of accessibility, the existing Vermont airport system was determined to provide coverage as noted in the following benchmarks:

- 93% of population within 60-minute drive of commercial service airport
- 62% of population within 30-minute drive of airport with a 5,000-foot long runway
- 44% of population within 30-minute drive of airport with a 5,000-foot long runway with a precision instrument approach

This existing performance was determined to be good overall, but that improved accessibility was needed to provide Vermonters with an airport system that could meet business, recreation, and personal needs. A summary of accessibility is depicted by the map on page ES.4.

The development performance measure examined in depth the ability of each airport to meet facility and service objectives that were established for each airport role. The analysis of the system's existing performance provides a baseline for determining the

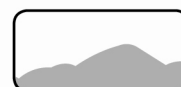


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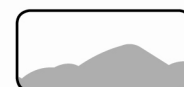
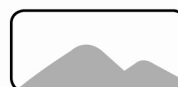
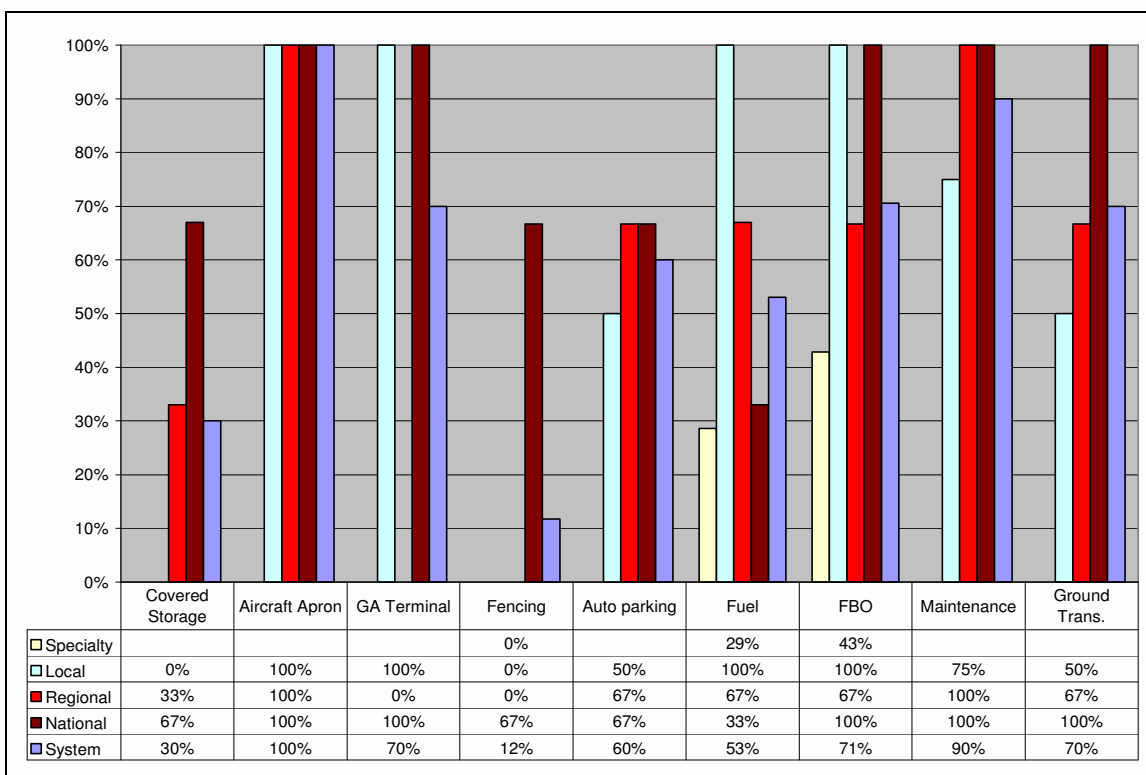
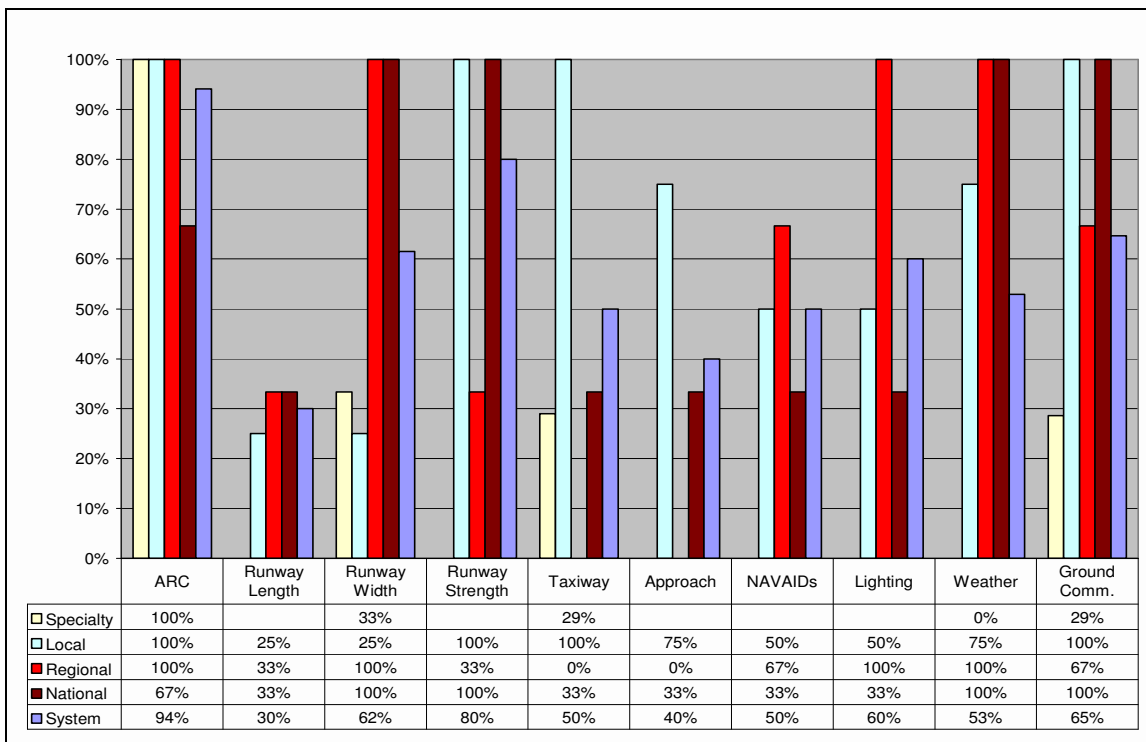
needs of the system. In addition, issues such as compatible land use, adoption of airport-related zoning, and airport planning were considered as part of the development performance analysis. Some of the development measures are depicted by the charts on page ES.9.

Detailed analysis of the safety and security performance measure was not conducted at this time. VTrans is currently undergoing a review and evaluation of each airport to determine its ability to meet FAA standards, as well as develop guidelines to meet new and constantly changing federal security needs.



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PERFORMANCE MEASURE: DEVELOPMENT - FACILITIES AND SERVICES



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FUTURE SYSTEM ANALYSIS

Based on the evaluation of the existing system's performance in comparison to the stated objectives, it was determined that additional coverage was needed to provide Vermont's businesses and recreational interests with access to airports that can accommodate their demand by larger aircraft. Consideration of strategic runway extensions and improved approaches at key airports should be undertaken to increase accessibility throughout Vermont. By providing key airports with the capability of accommodating larger aircraft, more of Vermont's residents and businesses will have access to these types of facilities, providing an opportunity for increased economic activity throughout Vermont.

Through an analysis of future airport demand and performance, specific projects were identified for each of Vermont's airports. This analysis provides a menu of projects and their associated costs for airport owners to consider over the 20-year planning period. It is important to note that these needs may not reflect those of each airport's individual planning efforts.

Of the total identified needs, approximately 91% could be funded with FAA grant assistance, while the remaining project funding would need to be provided by the State and other airport owners over the 20-year period.

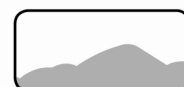
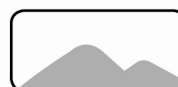
POLICY PLAN

The Vermont Airport System and Policy Plan uses a strategic approach to identify and evaluate the needs of the Vermont airport system over the next 20 years. The Policy Plan uses the framework developed for the System Plan, which analyzed the airports' roles and needs, and recommends policies to promote the long-term viability and effectiveness of the Airport System.

ROLE OF AVIATION IN VERMONT

As a key component of the State's transportation infrastructure, the Vermont Airport System's role is to provide access to the national air transportation system. The Vermont Airport System should serve to:

- Provide access from both the ground and the air
- Preserve and enhance existing infrastructure (asset) investments
- Promote a safe and secure system of airports
- Support economic activity throughout the State
- Integrate with the local, regional, and national transportation systems



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- Prepare for future transportation needs through new technology
- Promote aviation education
- Promote compatible land use
- Promote health, safety, and emergency services

VISION OF VERMONT'S AIRPORT SYSTEM

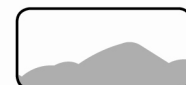
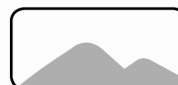
Each of Vermont's airports serves a unique role in the State system. While each airport serves its own local or regional marketplace, together, the State's airports fulfill an important role in connecting Vermonters to the national and international air transportation system, while also providing access for business and other visitors to Vermont. Airports are used to transport persons and freight in a timely manner, providing the quickest form of transportation. With this in mind, the vision for the Vermont airport system has been defined as:

"Vermont's airport system will be accessible, safe and secure, meeting the needs of its business and recreational users, including implementing new technologies to support the future system. The airport system will be preserved and enhanced, while meeting Federal and State guidance and promoting responsible environmental stewardship and land use compatibility. Vermont's airports will be operated as business-oriented facilities focusing on creating opportunities for a return on the investment and will provide intermodal linkages to national transportation systems."

In order for Vermont's airport system to meet this vision, goals and policies need to be established and implemented.

AVIATION MISSION FOR THE AGENCY OF TRANSPORTATION

The Vermont Agency of Transportation's aviation mission is to support, maintain and enhance the 10 State-owned airports. As the owner/operator of 10 State-owned airports, VTTrans promotes efficient and effective operation of its airports to assure safe, secure, and reliable air transportation of goods and people, while being environmentally responsible, cost-effective and supportive of Vermont's economy and recreational activities. Emergency services, aviation education, financial responsibility, and promotion of compatible land use are part of the mission for VTTrans, as is playing a supportive role to all airports and aviation statewide.

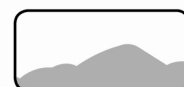
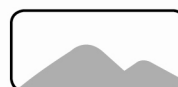


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VTRANS AVIATION GOALS

As part of the Airport System Plan, goals and associated performance measures were identified to guide Vermont's airport system development and establish the framework for the Plan. These goals have been supplemented by additional goals related to policy decisions that impact the maintenance and development of Vermont's airport system. The following goals will be sought to accomplish the mission of the airport system (not intended to be listed in priority order):

- Provide a system of airports that is accessible for people and goods from both the ground and the air throughout the State.
- Provide intermodal ground access opportunities and/or services such as rental car, taxi, bus, or bike.
- Preserve and enhance Vermont's existing airport system's infrastructure investment through maintenance and rehabilitation to meet future growth and demand as well as providing new infrastructure to meet future needs in support of the national air transportation system when needed.
- Plan for future airport development and protect public investment in airports through promotion of compatible land use in the vicinity of airports.
- Provide a safe and secure system of airports that meets State and Federal guidelines, including routine inspections of airports such as the 5010 Program.
- Seek adequate and stable funding, including FAA assistance, and assure appropriate staffing to support the Agency's mission.
- Make timely, sound infrastructure investments derived from airport master plans and based on priorities that are determined through coordination with Vermont's aviation stakeholders, including use of the Vermont Airport Capital Facilities Program.
- Maintain commercial air service at Rutland State Airport and support its development elsewhere in the State, as well as encourage additional commercial and cargo services where appropriate.
- Maintain an up-to-date integrated database of air and landside facilities including capital plans and improvements, leaseholds, contacts, relevant zoning as well as the system's performance measures.



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- Strive to generate appropriate revenues from the operation of the State-owned airports in support of their continued operation and expansion utilizing a business-oriented approach.

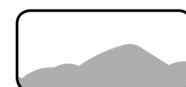
RECOMMENDED AVIATION POLICIES

In order for the Airport System and Policy Plan to be effective, policies must be established that relate the goals of the aviation system to implementation strategies. Goals were used explicitly throughout the Airport System Plan to derive recommendations related to future airport needs and development of an integrated, comprehensive, technologically advanced, and sound capital development plan. These goals and the performance categories described in the Policy Plan are synonymous.

Based on the role, mission, and vision for Vermont's aviation system, as well as the evaluation of the performance of the system relative to the performance measures and review of the previous policies, the following aviation policies are recommended for VTrans.

It is State Policy to:

1. Advocate for the promotion of aviation and airports, including education of youth and flight training to promote sustainability in Vermont's aviation industry.
2. Maintain all 10 State-owned airports in order to keep them open and safe.
3. Maintain adequate access to public-use commercial and general aviation airports for all areas of Vermont.
4. Promote generating appropriate revenues from the operation of State-owned airports utilizing a business-oriented approach.
5. Promote development of facilities at State-owned airports in response to demand including tie-down areas and hangars, including associated surface access and utilities either with State or private funding.
6. Implement an updated computerized Airport Management System such as Airport IQ consistent with the Strategic Enterprise Initiative that is based on achieving the performance targets set for the aviation system, with a high priority given to the matching of available federal funds.
7. Support federal passenger Essential Air Service subsidies at Rutland State Airport and continued growth of passenger service at Burlington International Airport and encourage new passenger service development such as charter and other services through marketing and promotion.
8. Promote compatible land use near airports.

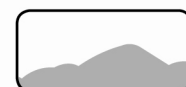
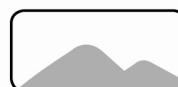


9. Utilize an asset management approach to ensure appropriate maintenance and investment in existing airport assets.
10. Seek adequate and stable funding and resources from all available sources to support the State's goals, mission and policies.
11. Promote airports as economic generators and catalysts.
12. Promote establishment of a statewide airports council to provide a forum for Vermont's airport operators, both public and private, to discuss current issues, activities, and processes to assist in enhancing Vermont's airport system.
13. Evaluate and seek changes to plans and facilities to respond to new technology and aircraft fleets to accommodate future air transportation system needs.
14. Encourage private use airports to consider transition to public use, if appropriate.

AVIATION PERFORMANCE MEASURES AND TARGETS

Performance measures and targets for the different performance categories have been developed to evaluate the aviation system. It is important to note that there are several measures that can be used to evaluate progress on the goals established for the aviation system and several goals that may relate to the same measure. Each goal was considered to determine the best methods for evaluating the system's performance related to that goal.

The existing conditions related to each performance measure were derived primarily from analysis in the Airport System Plan. Based on the existing conditions, analysis of the potential for change as included in the Airport System Plan, discussions with VTrans staff, and consideration of similar performance in other state aviation systems, five-year targets were established for each performance measure. The Aviation System Performance Targets are presented below.



Performance Category	Associated Aviation System Goals		Performance Measures	Existing Conditions	5-Year Target
ACCESSIBILITY	A.	Provide a system of airports that is accessible for people and goods from the ground and air	Percent of Vermont's population and land area within 60-minutes of an airport with commercial service (Vermont and neighboring airports)	93% population 75% land area	Maintain existing standards
			Percent of Vermont's population and land area within 30-minutes of a 5,000-foot runway	62% population 75% land area	Increase to 70-75% population 80% land area
			Percent of population and land area exclusively served (within 30 minutes) by a privately-owned public-use airport	8% population 11% land area	Decrease to 5% population 10% land area
	B.	Provide intermodal ground access opportunities/services (such as rental car, taxi, bus, bike)	Percent of airports with intermodal opportunities/services	70%	Increase to 80%
DEVELOPMENT	C.	Preserve and enhance existing infrastructure investment through maintenance, rehabilitation and development of new infrastructure	Percent of system airports meeting corporate aviation-related facility and service objectives including runway length and width, taxiway type, approach, and fuel	44%	Increase to 50%
			Percent of system airports having a pavement condition index (PCI) of "good" or better	75%	Increase to 85%
	D.	Promote airport-compatible land uses	Percent of airports having local airport-related zoning	53%	Increase to 100%
			Percent of airports that are recognized in regional land use plans that include airport-compatible land uses in the airport environs	76%	Increase to 100%
SAFETY AND SECURITY	E.	Provide safe and secure system of airports that meets State and federal guidelines, including 5010 inspection program	Percent of airports meeting applicable FAA airport design standards	TBD	75%
			Percent of airports meeting applicable VTrans or TSA security-related recommendations	TBD	100%
			Percent completion of monthly safety inspections at all State-owned airports	100%	100%

Performance Category	Associated Aviation System Goals		Performance Measures	Existing Conditions	5-Year Target
FUNDING AND ECONOMICS	F.	Seek adequate and stable funding, including FAA assistance, and assure appropriate staffing to support the Agency's mission	Achieve block grant status with FAA	Conventional FAA funding	Achieve block grant status by 2010
	G.	Maintain and utilize Vermont's Airport Capital Facilities Program to make appropriate and timely investment decisions or project prioritization decisions	Implementation of updated computerized Airport Management System	TBD	Complete by 2009
	H.	Maintain Commercial Air Service at Rutland State Airport and support its development elsewhere in the state AND Encourage additional commercial and cargo services where appropriate	Number of airports with commercial air service and cargo activity	2 airports	2 airports
MAINTENANCE	I.	Maintain an up-to-date database on aviation facilities	Implementation of updated web-enabled database system that provides additional features including performance measurement tracking	Underway	Complete by 2008
	J.	Strive to generate appropriate revenues from the operation of the State-owned airports utilizing a business-oriented approach with the leases	Number of airport leases that have been updated with current rate structures	TBD	Increase by 3% annually